

REMARKS

The examiner has objected to the abstract as being too short. A replacement abstract is included herewith.

The examiner identified a typographical error on page5, line 2. A replacement paragraph is included herewith in the amendments to the specification.

The examiner has objected to claims 2-6, 8-9, 11-12 and 14-24 due to minor errors in the claims. Claims in this group that have not been canceled have been amended to overcome this rejection.

Claims 10-14 have been rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10-14 have been amended to more particularly point out this aspect of the invention.

Claim 26 has been rejected under 35 USC §101 as being direct to non-statutory subject matter. Claim 26 relates to computer-readable media, which is well-known to be statutory subject matter. Guidelines issued to examiners have been amended in the time since this application was filed. These guidelines now suggest additional specificity in claiming computer-readable media. Applicant amends this claim in accordance with those guidelines to more specifically claim computer-executable instructions as described in the latest guidelines. Applicant also directs the examiner to those guidelines for an explanation of why computer-executable instructions are statutory subject matter when specifically linked to computer-readable media.

Claims 1, 2, 3, 4, 5, 6, 25 and 26 have been rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,973,213, by Fan et al.

Claim 1 has been amended to more particularly describe these embodiments of the present invention. Claim 1, as amended, comprises elements not taught in Fan et al. Fan et al teach a method wherein background is removed and the remaining elements are classified as text, picture or composite objects. The method of Fan et al removes only the background and processes the remaining elements. The embodiments described in claim 1 remove text and background from the image leaving a different image free of text-on-background from which contone regions are identified and further processed. While the processes of Fan et al must process text-on-background in subsequent image processing steps.

Fan et al also do not teach “classifying a pixel as background if said pixel corresponds to said histogram bin and said maximum number of values is greater than said threshold value” and “calculating an area luminance histogram for said areas not classified as background or text, determining a number of populated histogram bins whose pixel count exceeds a threshold value, comparing said number of populated histogram bins to a bin number threshold value, and classifying said area as a contone region when said number of populated histogram bins exceeds said bin number threshold value” as found in claim 1, as amended.

Claims 2 and 5 are dependent on claim 1 and comprise all the limitations therein. Accordingly, claims 2 and 5 are allowable for the reasons stated above in regards to claim 1.

Claims 3, 4 and 6 are amended to comprise the allowable subject matter identified by the examiner in claims 18, 23 and 24 of the original application. Accordingly, these claims should

be further patentable for the reasons cited by the examiner in the Office Action to which this paper responds.

Claims 25 and 26 have also been amended with elements equivalent to those added to claim 1. Accordingly, claims 25 and 26 are allowable for the reasons stated above in regards to claim 1.

Claims 7 and 9 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,973,213, by Fan et al in view of U.S. Patent No. 6,449,396 by Loce et al.

Claim 7 has been amended to more particularly point out aspects of the claimed invention. Claim 9 is canceled.

Claim 8 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,973,213, by Fan et al in view of U.S. Patent No. 6,449,396 by Loce et al and further in view of U.S. Patent No. 6,952,502, by Gill et al.

Claim 8 is canceled.

Claims 10-12 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,973,213, by Fan et al in view of U.S. Patent No. 6,564,176 by Kadtke et al.

The combination of Fan et al and Kadtke et al is an improper combination. While Fan et al teach processes similar to the claimed invention, Kadtke et al does not teach methods for image segmentation or text detection. While Kadtke et al teach the use of standard deviation and spread in signal processing, they do not teach the use of these statistical operators for text

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detection as claimed in these claims. Accordingly, this combination is improper and the requested to withdraw this rejection.

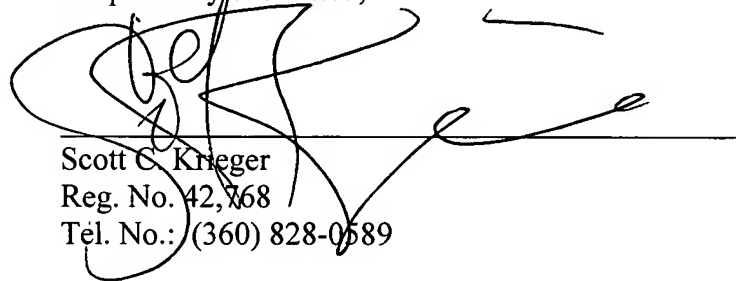
Claims 13, 14, 15, 16, 17, 19, 20, 21 and 22 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,973,213, by Fan et al in view of U.S. Patent No. 6,564,176 by Kadtke et al and further in view of U.S. Patent No. 6,628,833, by Horie.

This combination is also improper as Kadke et al is not related art as explained above in relation to the rejection of claims 10-12.

New claims 27-29 are presented as independent claims corresponding to claims 18, 23 and 24, which were identified by the examiner as patentable if put in independent form. Claims 18, 23 and 24 are canceled as their subject matter is now claimed in claims 27-29.

Accordingly, all current claims are believed to be in condition for allowance.

Respectfully submitted,



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